



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,329	06/24/2003	Charles Michael Birtcher	06432 USA	9043

23543 7590 12/21/2005

AIR PRODUCTS AND CHEMICALS, INC.
PATENT DEPARTMENT
7201 HAMILTON BOULEVARD
ALLENTOWN, PA 181951501

EXAMINER

KHAIRA, NAVNEET K

ART UNIT	PAPER NUMBER
----------	--------------

3754

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/602,329	Applicant(s) BIRTCHEER ET AL.	
	Examiner Navneet Sonia Khaira	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 24, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-16 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/03/04, 4/19/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election with traverse of figs 1 and 3A-C and claims 1-9, 11-16, and 20 in the reply filed on June 24, 2004 is acknowledged. The traversal is on the ground(s) that the embodiments fall in the same field of search without independence and distinctness. This is not found persuasive because there is not a common field of search. The different field of search employs a different query electronic databases to search various embodiments. Therefore it would be a serious burden on the office.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 10, 17-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 24, 2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3754

Claims 1,2, 4-9,11-16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodruff et al (US 5,782,381) in view of Sanchelima (5,901,740).

Referring to claim 1, Woodruff et al further discloses a transportable metallic container (1) for high purity, high cost, liquid chemicals capable of maximizing dispensing of the liquid chemical content of the container at deviations from an upright position without dispensing all of the liquid chemical, comprising;

- a metallic shell (23, 25) comprising a top wall (3), a side wall (25) and a bottom wall (surface above 39), the bottom wall having an internal surface contacting liquid chemical with a hemispherical concave upward contour (fig 1) having a lowest most point axially central (21) to the container (1);

- a first valved orifice (7) capable of being used as an inlet (fill port, col 3, line 10);

- a second valved orifice (17) capable of being used as an outlet comprising a diptube (19) through which the liquid chemical can be dispensed from said container with an outlet end adjacent the top surface (3) and an inlet terminal end adjacent the lowest most point (21);

- a axially central level sensor the top surface and a terminal end containing a lowest most level (13) sensing sensor adjacent the lowest most point (21); the diptube (19) and the level sensor (13) assembly being more proximate to one another at their terminal ends (fig 1) than their ends adjacent the top surface

Art Unit: 3754

(space bet 11 and 17, fig 1) but does not disclose the assembly is an ultrasonic level sensor. Sanchelima discloses a container with an ultrasonic alarm assembly (75).

It would have been obvious to one of ordinary skill in the art to have connected the level sensor of Woodruff et al with an ultrasonic sensor alarm of Sanchelima instead of jus a visual capacity sensor in order to signal the user with a sound alarm of the levels of the product within the container as taught by Sanchelima.

Referring to claim 2, Woodruff et al further discloses orifice (7) capable of being used as an inlet and said orifice (17) capable of being used as an outlet each have a valve for controlling fluid flow through said orifices.

Referring to claim 4, Woodruff et al further discloses a concave upward contour is a quadric surface (surface above 39, bottom of tank).

Referring to claim 5, Woodruff et al further discloses an internal surface (3) of said sidewall forms a smooth curved surface (inner wall on inside of 23) with said internal surface of said bottom wall (surface above 39, bottom of tank).

Referring to claim 6, Woodruff et al further discloses sidewall (25, fig 1) has a cylindrical shape.

Art Unit: 3754

Referring to claim 7, Woodruff et al further discloses top wall (3) has an internal surface with a concave downward contour (fig 1).

Referring to claims 8 and 15, Woodruff et al further discloses concave downward contour surface (3, fig 1).

Referring to claim 9, Woodruff et al further discloses diptube (19, fig 1) is axially central to said sidewall.

Referring to claim 11, Woodruff et al further discloses level sensor (13) assembly comprises two or more discrete level sensors (col 6, lines 20-25).

Referring to claim 12, Woodruff et al further discloses level sensor (13) assembly comprises three level sensors; a high level sensor adjacent the output end (11) of the level sensor (13) assembly; a low level sensor(col 6, line 23) adjacent the terminal end of the level sensor assembly and a middle level sensor (1/2 full, col 6, line 22) between the high level sensor and the low level sensor.

Referring to claim 13, Woodruff et al further discloses level sensor assembly is selected from the group consisting of a capacitance level sensor assembly (capacity indicator, col 6, lines 15-25).

Art Unit: 3754

Referring to claim 16, Woodruff et al further discloses level sensor (13, fig 1) is positioned at an angle to the diptube (19) with the terminal end tip of said assembly and said diptube (19) being in close proximity to one another and the internal surface of said bottom wall at the axially central lowest most point (21) of said hemispherically upward contour of said internal surface (surface above 39) of said bottom wall.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woodruff et al (US 5,782,381) in view of Bouchard (6,077,356).

Referring to claim 3, Woodruff et al disclosed a container with orifices but did not disclose the valves are pneumatic valves capable of being operated by remote automated control. Bouchard discloses the valves being controlled by a central processing unit (90).

It would have been obvious to one of ordinary skill in the art to have modified the valves of Woodruff et al with the automated control unit of Bouchard in order to dispense the product manually during use as taught by Bouchard.

Citation of Related Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cripe et al (US 5,607,000), Chase et al (US 6,526,824), and Kumagai et al (US 6,792,923) references also disclosed transportable container with diptube and level sensor assemblies.

Art Unit: 3754

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navneet Sonia Khaira whose telephone number is 571-272-7142. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mar Y. Michael can be reached at 571-272-4906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NK

Navneet Sonia Khaira
Examiner
Art Unit 3754



MICHAEL MAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700